

CLAIMS

1. A spring-force clamp connector for connecting an electrical conductor comprising:
 - a substantially planar conductive core piece having an opening comprising a four-cornered material passage constructed and arranged to receive the electrical conductor therethrough, the material passage including an aperture collar extending in the direction of the passage, the aperture collar including an inner wall;
 - a leaf spring including a clamping member, the clamping member having a first end that is inserted into the passage such that it forms with the inner wall of the aperture collar a clamping site for the electrical conductor;
 - a cross edge disposed adjacent the inner wall area of the aperture collar, the cross edge projecting against the electrical conductor and extending crosswise to the direction of the passage; and
 - wherein the clamping member spring is constructed and arranged such that an end-side clamping edge of the clamping member lies substantially opposite the cross edge.
2. The spring-force clamp connector according to claim 1, wherein the cross edge is formed by a lower edge of the aperture collar of the material passage in the direction of the passage, and wherein the cross edge abuts the electrical conductor to be clamped.
3. The spring-force clamp connector according to claim 2, wherein the inner wall of the aperture collar adjacent the clamping site includes an inclined area with substantially smooth transitions.
4. The spring-force clamp connector according to claim 1, wherein the leaf spring has substantially a U shape and includes at a bearing piece disposed at an end on the side opposite the clamping member, the bearing piece extending with clamping member in the material passage, the bearing piece being adjacent to the inner wall area of the aperture collar, which lies opposite the inner wall area of the aperture collar that forms the clamping site.

1 5. A spring-force clamp connector with a substantially planar conductive core piece for
2 connecting an electrical conductor comprising:

3 an opening constructed and arranged to receive the conductor therethrough, the opening
4 having a shape of a four-cornered material passage, and further including an aperture collar
5 extending in the direction of the passage, the aperture collar including an inner wall;

6 a leaf spring including a clamping member, the clamping member having a first end that is
7 inserted into the passage such that it forms with the inner wall of the aperture collar a clamping
8 site for the electrical conductor, the clamping site having an uncoated surface;

9 an end-side partial piece disposed at the uncoated and closed clamping site, the partial
10 piece being disposed within a contour of the passage, the partial piece having a surface area
11 which is the same size as or larger than the nominal cross section of the conductor to be clamped;
12 and

13 wherein the annular, closed inner wall area of the aperture collar with the end-side partial
14 piece of the clamping member forms a conductor pre-capture pocket that is encased in metal for a
15 forward end of the electrical conductor to be inserted.

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17 6. A spring-force clamp connector with a substantially planar conductive core piece for
18 connecting an electrical conductor comprising:

19 an opening constructed and arranged to receive the conductor therethrough, the opening
20 having a shape of a four-cornered material passage, and further including an aperture collar
21 extending in the direction of the passage, the aperture collar including an inner wall;

22 a leaf spring including a clamping member, the clamping member having a first end that is
23 inserted into the passage such that it forms with the inner wall of the aperture collar a clamping
24 site for the electrical conductor;

25 a central partial piece of the clamping member of the leaf spring disposed outside of a
26 contour of the passage, the central partial piece including a front convexity in the direction of the
27 spring clamping force of the clamping member of the leaf spring; and wherein

28 upon a pressing tool being placed on the front convexity and substantially perpendicular to
29 the upper side of the conductive core piece, the clamping member is pushed back to an up
30 position in which the clamping site is completely opened.